IN THE CLAIMS

Please cancel claims 1-90.

Please add new claims 91-142, as follows:

- A method to obtain information transmitted between a source station and a 1 91. 2 destination station in a non broadcast multiple access network, comprising: 3 establishing a connection between the source station and a server for the destination 4 station, the server having a server cache containing the information; 5 transmitting a request packet having parameters relating to the information to the 6 server; and 7 receiving a reply packet containing the information from the server, the reply packet 8 matching the parameters of the request packet.
- 1 92. The method of Claim 91 wherein the information comprises an internetwork 2 layer address of the destination station.
- 1 93. The method of Claim 91 wherein the information comprises an instance of a resource information.
- 1 94. The method of Claim 93 wherein the resource information comprises a 2 resource availability and an upper layer address information.
- 1 95. The method of Claim 92 further comprising:
- 2 caching the address in a source cache;
- 3 inserting the address in a data packet; and
- 4 forwarding the data packet to the destination station.
- 1 96. The method of Claim 92 wherein the request packet and the reply packet are instances of a protocol packet.
- 1 97. The method of Claim 96 wherein the protocol packet comprises a fixed part 2 and a mandatory part.

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- 1 98. The method of Claim 96 wherein the protocol packet further comprises an 2 extensions part.
- 99. 1 The method of Claim 98 wherein the fixed part comprises at least one of a 2 type field specifying a packet type and an extension offset field specifying if the extension 3 part exists and a location of the extension part if the extension part exists.
- 1 100. The method of Claim 99 wherein the fixed part further comprises at least one 2 of a link layer address field specifying a type of link layer addresses being carried, a protocol 3 field specifying a protocol being used, a packet length field specifying a length of the 4 protocol packet, a checksum field specifying a checksum value, a version field specifying a 5 version of the protocol, a type and length of source address field specifying a type and length 6 of a source NBMA address, and a type and length of source subaddress field specifying a type 7 and length of a source NBMA subaddress.
- 1 101. The method of Claim 99 wherein the packet type is one of a resolution request 2 type, a resolution reply type, a registration request type, and a registration reply type.
 - 102. The method of Claim 101 wherein the request packet is one of a resolution request packet and a registration request packet, the resolution and the registration request packets corresponding to the resolution and registration request types, respectively.

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- 1 103. The method of Claim 101 wherein the reply packet is one of a resolution reply 2 packet and a registration reply packet, the resolution and the registration reply packets 3 corresponding to the resolution and registration reply types, respectively.
- 1 104. The method of Claim 97 wherein the mandatory part comprises a common 2 header.
- 1 The method of Claim 104 wherein the mandatory part further comprises at 105. 2 least a client information entry (CIE).

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106. The method of Claim 104 wherein the common header comprises at least one of a flag field specifying a flag and a request identification (ID) field specifying a request ID.

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- 107. The method of Claim 106 wherein the common header further comprises at least one of a source NBMA address field specifying the source NBMA address, a source NBMA subaddress field specifying the source NBMA subaddress, a source protocol address field specifying a source protocol address of the source station, and a destination protocol address field specifying a destination protocol address of one of the destination station and the server.
- The method of Claim 105 wherein the CIE comprises at least one of a code 1 108. field specifying an acknowledgment of the request packet in the reply packet, a maximum 2 3 transmission unit field specifying a maximum transmission unit and a holding time field 4 specifying a holding time for which data in the CIE are valid.
 - 109. The method of Claim 108 wherein the CIE further comprises at least one of a client address time and length field specifying a time and length of a client address interpreted by the link layer address field in the fixed part, a client subaddress time and length field specifying a time and length of a client subaddress interpreted by the link layer address field in the fixed part, a client NBMA address field specifying a client NBMA address, a client NBMA subaddress field specifying a client NBMA subaddress, and a client protocol address field specifying a client internetworking layer address.
 - 110. The method of Claim 106 wherein the flag of the resolution request packet comprises at least one of a station type specifying whether the source station is a router or a host, a uniqueness value specifying that only a CIE matching the parameters and having the same uniqueness value is included in the reply packet, and a guarantee value specifying that a binding of the information is guaranteed stable and accurate.
 - 111. The method of Claim 106 wherein the flag of the resolution reply packet comprises at least one of a station type specifying whether the source station is a router or a

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- 3 host, a destination value specifying that an association of information between the destination
- 4 and source stations is guaranteed stable within the holding time, a uniqueness value
- 5 specifying that only a CIE matching the parameters and having the same uniqueness value is
- 6 included in the reply packet, and a guarantee value specifying that a binding of the
- 7 information is guaranteed stable and accurate.
- 1 112. The method of Claim 106 wherein the flag of the registration request packet
- 2 comprises at least a uniqueness value specifying that a registration of the information is
- 3 unique.
- 1 113. The method of Claim 98 wherein the extension part comprises at least an
- 2 extension type-length-value (TLV) triplet.
- 1 114. The method of Claim 113 wherein the extension TLV triplet in the protocol
- 2 packet contains information regarding one of an internetwork layer address of a station, an
- 3 internet protocol (IP) address of the destination station, an availability of an upper layer
- 4 protocol resource, and an instance of an upper layer protocol resource.
- 1 115. The method of Claim 114 wherein the extension TLV triplet comprises at
- 2 least one of a compulsory value specifying if the extension part is ignored, an extension type
- 3 specifying an extension protocol being used, an extension value specifying an extension
- 4 information, and an extension length specifying a length of an extension value.
- 1 116. The method of Claim 114 wherein the extension part is terminated by an end-
- 2 of-extension TLV triplet.
- 1 117. The method of Claim 114 wherein the extension TLV triplet contains vendor
- 2 private information including a vendor identification.
- 1 118. A system comprising:
- a server operating in a non broadcast multiple access network (NBMA), the server
- 3 having a cache containing information on a destination station;

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4	a source station coupled to the server via a connection to obtain the information, the
5	source station transmitting a request packet to the server, the request packet having
6	parameters relating to the information; and
7	wherein the server transmits a reply packet containing the information to the source
8	station, the reply packet matching the parameters of the request packet.
1	119. The system of Claim 118 wherein the information comprises an internetwork
2	layer address of the destination station.
1	120. The system of Claim 118 wherein the information comprises an instance of a
2	resource information.
1	121. The system of Claim 120 wherein the resource information comprises a
2	resource availability and an upper layer address information.
1	122. The system of Claim 119 wherein the source station comprises:
2	a source cache to cache the address, the address being inserted in a data packet, the
3	data packet being forwarded to the destination station.
1	123. The system of Claim 119 wherein the request packet and the reply packet are
2	instances of a protocol packet.
1	124. The system of Claim 123 wherein the protocol packet comprises a fixed part
2	and a mandatory part.
1	125. The system of Claim 123 wherein the protocol packet further comprises an
2	extensions part.
1	126. The system of Claim 125 wherein the fixed part comprises at least one of a

type field specifying a packet type and an extension offset field specifying if the extension

part exists and a location of the extension part if the extension part exists.

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- 1 127. The system of Claim 126 wherein the fixed part further comprises at least one 2 of a link layer address field specifying a type of link layer addresses being carried, a protocol 3 field specifying a protocol being used, a packet length field specifying a length of the 4 protocol packet, a checksum field specifying a checksum value, a version field specifying a 5 version of the protocol, a type and length of source address field specifying a type and length of a source NBMA address, and a type and length of source subaddress field specifying a type 6 7 and length of a source NBMA subaddress.
- The system of Claim 126 wherein the mandatory part comprises a common 1 128. 2 header.
- 1 129. The system of Claim 128 wherein the mandatory part further comprises at 2 least a client information entry (CIE).

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- 130. The system of Claim 128 wherein the common header comprises at least one of a flag field specifying a flag and a request identification (ID) field specifying a request ID.
- 1 131. The system of Claim 130 wherein the packet type is one of a resolution 2 request type, a resolution reply type, a registration request type, and a registration reply type, 3 the request packet being one of a resolution request packet and a registration request packet, the resolution and the registration request packets corresponding to the resolution and 4 5 registration request types, respectively, and the reply packet being one of a resolution reply 6 packet and a registration reply packet, the resolution and the registration reply packets 7 corresponding to the resolution and registration reply types, respectively.
- 1 132. The system of Claim 130 wherein the common header further comprises at 2 least one of a source NBMA address field specifying the source NBMA address, a source 3 NBMA subaddress field specifying the source NBMA subaddress, a source protocol address 4 field specifying a source protocol address of the source station, and a destination protocol 5 address field specifying a destination protocol address of one of the destination station and 6 the server.

082771.P332PCTUS -7-WWS/crr 1 133. The system of Claim 129 wherein the CIE comprises at least one of a code 2 field specifying an acknowledgment of the request packet in the reply packet, a maximum 3 transmission unit field specifying a maximum transmission unit and a holding time field 4 specifying a holding time for which data in the CIE are valid.

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- 134. The system of Claim 133 wherein the CIE further comprises at least one of a client address time and length field specifying a time and length of a client address interpreted by the link layer address field in the fixed part, a client subaddress time and length field specifying a time and length of a client subaddress interpreted by the link layer address field in the fixed part, a client NBMA address field specifying a client NBMA address, a client NBMA subaddress field specifying a client NBMA subaddress, and a client protocol address field specifying a client internetworking layer address.
- 1 135. The system of Claim 131 wherein the flag of the resolution request packet 2 comprises at least one of a station type specifying whether the source station is a router or a 3 host, a uniqueness value specifying that only a CIE matching the parameters and having the 4 same uniqueness value is included in the reply packet, and a guarantee value specifying that a 5 binding of the information is guaranteed stable and accurate.
 - 136. The system of Claim 131 wherein the flag of the resolution reply packet comprises at least one of a station type specifying whether the source station is a router or a host, a destination value specifying that an association of information between the destination and source stations is guaranteed stable within the holding time, a uniqueness value specifying that only a CIE matching the parameters and having the same uniqueness value is included in the reply packet, and a guarantee value specifying that a binding of the information is guaranteed stable and accurate.
- 1 137. The system of Claim 131 wherein the flag of the registration request packet 2 comprises at least a uniqueness value specifying that a registration of the information is 3 unique.

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- 1 138. The system of Claim 125 wherein the extension part comprises at least an extension type-length-value (TLV) triplet.
- 1 139. The system of Claim 125 wherein the extension TLV triplet in the protocol packet contains information regarding one of an internetwork layer address of a station, an internet protocol (IP) address of the destination station, an availability of an upper layer protocol resource, and an instance of an upper layer protocol resource.
- 1 140. The system of Claim 139 wherein the extension TLV triplet comprises at least 2 one of a compulsory value specifying if the extension part is ignored, an extension type 3 specifying an extension protocol being used, an extension value specifying an extension 4 information, and an extension length specifying a length of an extension value.
- 1 141. The system of Claim 139 wherein the extension part is terminated by an end-2 of-extension TLV triplet.
- 1 142. The system of Claim 139 wherein the extension TLV triplet contains vendor 2 private information including a vendor identification.